



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/709,845	06/01/2004	Jeng-Yih WU	NAUP0563USA	3844
27765	7590	11/16/2005	EXAMINER	
NORTH AMERICA INTELLECTUAL PROPERTY CORPORATION P.O. BOX 506 MERRIFIELD, VA 22116			REHM, ADAM C	
			ART UNIT	PAPER NUMBER
			2875	

DATE MAILED: 11/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/709,845	<b>Applicant(s)</b> WU ET AL.	
	<b>Examiner</b> Adam C. Rehm	<b>Art Unit</b> 2875	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>10/4/2005</u> | 6) <input type="checkbox"/> Other: ____  |

Art Unit: 2875

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 4 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over MASUMOTO (US 5,418,583) as applied to claim 1 above, and further in view of applicant's admitted prior art. MASUMOTO discloses the claimed invention, but does not specifically disclose a PS converter or a high-pressure mercury lamp light source. However, applicant admits that prior art projectors use PS converters for polarizing light beams (Page 2, Lines 9-10, Fig. 1) and high-pressure mercury lamps (Page 2, Lines 11-14), which are commonly used in projectors due to well-known properties including high lumens, long life, color constancy and low cost. It would have been obvious to one of ordinary skill in the art at the time of invention to modify MASUMOTO and use the PS converter and mercury lamp as taught by applicant in order to polarize light beams from an efficient light source.

3. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over MASUMOTO (US 5,418,583) as applied to claim 1 above, and further in view of WEI ET AL. (US 2004/0145710). MASUMOTO discloses the claimed invention, but does not specifically disclose an invisible-light/UV/IR cut filter positioned at an acute angle of 11-45 degrees to the first array. However, WEI teaches positioning such a filter at an acute angle (Paragraph 26) for the purpose of diverting filtered/harmful light away from the image module to avoid damaging the module (Paragraph 25). It would have been obvious to one of ordinary skill in the art at the time of invention to modify MASUMOTO

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-3, 7, 9 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by MASUMOTO (US 5,418,583), which discloses a projector (Column 1, Lines 6-14) comprising:

- A light source (1);
- A first lens array positioned on a side of the light source (4, Fig. 16);
- An invisible-light/UV/IR cut filter being non-parallel with the first array (105);
- A second lens array positioned on the same side of the light source as the first lens array (5); and
- A light source housing/reflector (3).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

Art Unit: 2875

and use the acutely-angled invisible-light/UV/IR filter as taught by WEI in order to direct harmful light away from sensitive components, thus preserving the image module/unit.

4. Claims 11-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over MASUMOTO (US 5,418,583) and WEI ET AL. (US 2004/0145710). MASUMOTO discloses a projector (Column 1, Lines 6-14) comprising a light source (1); a first lens array positioned on a side of the light source (4, Fig. 16); a second lens array positioned on the same side of the light source as the first lens array (5); an invisible-light/UV/IR cut filter being non-parallel with the first array and between the first and second arrays (105); and a light source housing/reflector (3). However, MASUMOTO does not disclose an invisible-light/UV/IR cut filter positioned at an acute angle to the first array. However, WEI teaches positioning such a filter at an acute angle of 11-45 degrees (Paragraph 26, Fig. 2) for the purpose of diverting filtered/harmful light away from the image module to avoid damaging the module (Paragraph 25). It would have been obvious to one of ordinary skill in the art at the time of invention to modify MASUMOTO and use the acutely-angled invisible-light/UV/IR filter as taught by WEI in order to direct harmful light away from sensitive components, thus preserving the image module/unit.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

5. O'BRIEN ET AL. (WO 03/064919) discloses a tilted IR filter for reflecting harmful light to away from a light source.

Art Unit: 2875

6. MENSALES ET AL. (US 2004/0228137) discloses a tilting IR filter.

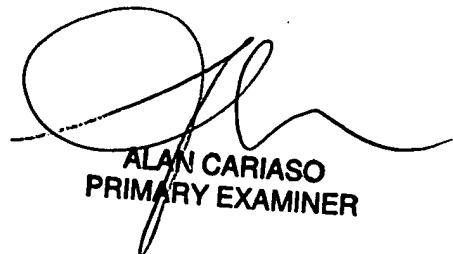
***Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adam C. Rehm whose telephone number is 571.272.8589. The examiner can normally be reached on M-F 9-5:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on 571.272.2378. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ACR  
11/9/2005

  
ALAN CARIASO  
PRIMARY EXAMINER